

Farm and Farm-Related Industries Provided a Quarter of Nonmetro Jobs in 1992

Farming and its related industries provide almost 25 percent of total nonmetro employment. Farm production and its closely related industries have suffered from a long-term decline in employment while retail food industries have enjoyed substantial job gains.

Farming and its related industries provided 21.6 million jobs in 1992, the most recent year for which we have data. Almost 6 million of these jobs were in nonmetro counties, accounting for a quarter of all nonmetro employment. Farm production, plus associated agricultural services and forestry and fishing, accounted for slightly over 2 million of the farm and farm-related jobs in nonmetro areas. Agricultural wholesale and retail trade industries, including grocery stores that provide the final linkage between farmer and consumer, contributed the largest number of nonmetro farm-related jobs, almost 2.5 million. Industries in nonmetro counties that process and market agricultural goods after they leave the farm accounted for another 1.2 million jobs. Agricultural input industries, such as farm machinery manufacturers and suppliers, added about 200,000 jobs. Indirect agribusiness, like chemical and fertilizer mining and food products machinery manufacturing, supplied another 131,000 positions.

Share of Jobs in Farm and Farm-Related Industries Varies by Region

Nonmetro counties in the Corn Belt and Appalachia contain the largest number of farm and farm-related jobs. Together these two regions account for over one-third of all farm and farm-related employment in nonmetro areas. While farm and farm-related industries provide about 25 percent of total nonmetro employment, the Northern Plains depends the most on these industries for jobs—they account for almost 30 percent of the region's total nonmetro employment. In contrast, these industries provide only 18.5 percent of the nonmetro jobs in the Northeast.

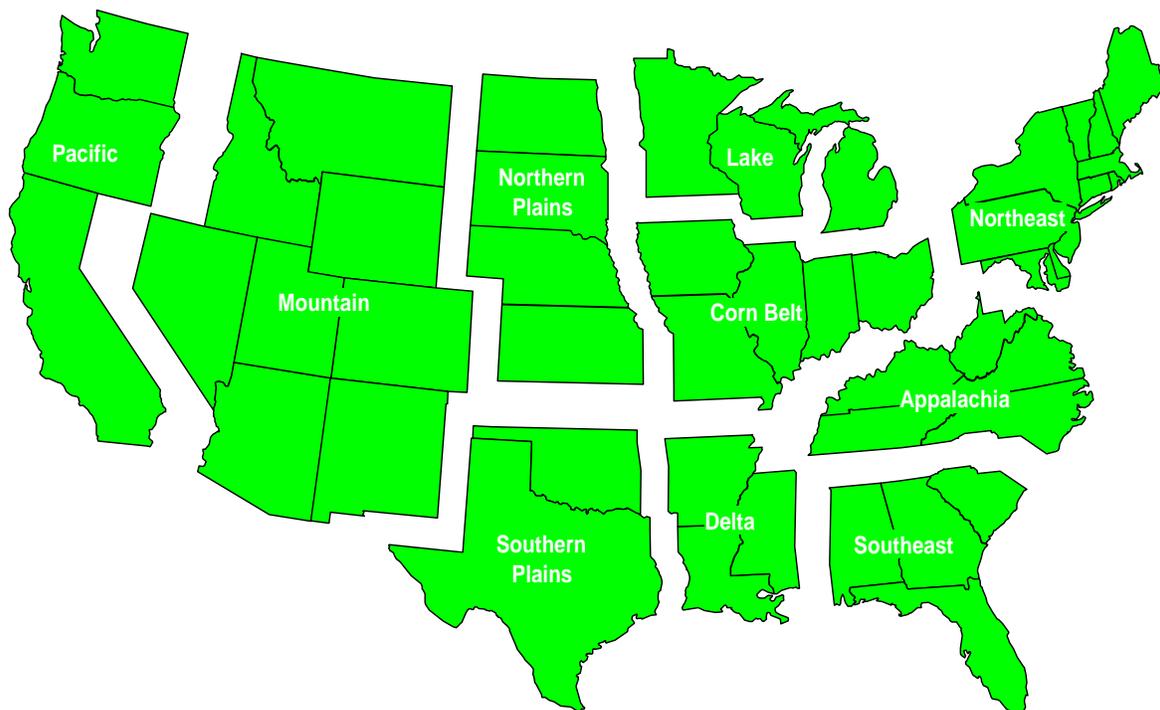
The heavily farm-dependent Corn Belt leads all regions in nonmetro jobs in farm production and its closely associated industries. With its reliance on farming, the Corn Belt unsurprisingly has almost twice as many agricultural input jobs as any other region. The largest number of agricultural processing and marketing jobs are in Appalachia and the Southeast. Most of the processing jobs in these two regions, about 75 percent, are in apparel and textile manufacturing. The Corn Belt and Appalachia also surpass other regions in agricultural wholesale and retail trade employment. Employment in these industries is not driven by farming activity but rather by population and related consumer demand. Nonmetro populations of 8.8 million in the Corn Belt and 8.4 million in Appalachia, far exceeding the nonmetro population in other areas, explain the larger number of jobs in agricultural wholesale and retail trade industries in these regions.

Many Farm and Farm-Related Jobs Are in Nonfarm Counties

At the county level, farm and farm-related industries accounted for almost 40 percent of the jobs in nonmetro counties where farming is the primary economic activity. A county's primary economic activity is determined through the Economic Research Service's classification of nonmetro counties into six economic types: farming-dependent, mining-dependent, manufacturing-dependent, government-dependent, services-dependent, and non-specialized. Although farm and farm-related jobs are most important in farming-dependent counties as a percentage of total county employment, large numbers of these jobs are located in manufacturing- and services-dependent and nonspecialized counties. Farm and farm-related jobs in these county types account for about 25 percent of total county employment.

Farm production contributed greatly to the total number of jobs in some types of counties which were not principally dependent on farming. Three-quarters of all farm production, agricultural services, forestry, and fishing jobs were located outside farming-dependent counties, especially in nonspecialized and manufacturing-dependent counties. As a percentage, though, farm production and its associated jobs provided 22 percent of the employment in farming-dependent counties while they accounted for 10.4 percent of

U.S. farm production regions



Note: Alaska and Hawaii are not part of the farm production region classification scheme, although they are included in U.S. totals.

Nonmetro farm and farm-related employment by region, 1992

Wholesale and retail trade accounted for most farm and farm-related employment

Region	Total	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
Number of jobs						
United States	5,972,611	2,015,597	195,844	1,178,961	2,451,273	130,936
Appalachia	1,001,859	290,992	18,766	313,953	354,316	23,832
Corn Belt	1,038,085	403,114	50,950	147,514	408,053	28,454
Delta States	437,690	132,874	15,206	117,364	159,792	12,454
Lake States	553,036	208,376	23,123	66,542	242,658	12,337
Mountain	446,821	143,576	12,036	34,594	244,115	12,500
Northeast	498,600	101,791	8,070	83,649	295,921	9,169
Northern Plains	460,291	218,777	26,881	67,083	145,420	2,130
Pacific	298,413	109,642	8,393	24,551	151,168	4,659
Southeast	670,031	145,872	17,030	250,269	236,286	20,574
Southern Plains	492,435	241,539	14,694	60,442	170,939	4,821

Source: Calculated by ERS using U.S. Department of Commerce data.

employment in nonspecialized counties and only 6.5 percent in manufacturing-dependent counties.

Jobs in the wholesale and retail trade of agricultural products accounted for the largest share of farm and farm-related jobs in most county types. Farming-dependent counties were the exception. In these counties the wholesale and retail trade industry provided only 8.7 percent of the employment compared with farming's 22 percent share. Population in farming-dependent counties is generally low, thus limiting the demand for wholesale and retail outlets and their associated employment.

Industries Peripheral to Agriculture Drive Employment Gains During 1975-92

Farm and farm-related employment in nonmetro counties increased 8.7 percent, a gain of 478,000 jobs, during 1975-92. Most of this increase occurred before 1982. Although the overall number of jobs rose, the gain was restricted to those industries peripherally related to farming, principally agricultural wholesale and retail trade and indirect agribusiness. Employment growth in agricultural wholesale and retail trade industries exceeded 77 percent, a gain of almost 1.1 million jobs. Job growth in wholesale and retail trade industries, closely linked to growth in population, is also related to income increases and demographic changes. Increased personal income has shifted some food preparation to retail outlets. Expanding numbers of dual-income and single-parent families, pressed for time to cook meals, have changed consumer habits, such as dining out more frequently or purchasing prepared foods. Compared with wholesale and retail trade, job gains in indirect agribusiness were much smaller, only 27,000 jobs.

Nonmetro employment change for farming and its most closely related industries was quite different compared with that in peripheral industries. Farm production, along with agricultural services, forestry, and fishing, lost 548,000 jobs, or a 21.4-percent decline during 1975-92. Farm employment suffered from long-term trends in farm consolidation and persistent increases in productivity that continue to reduce labor requirements needed to produce agricultural goods. Industries closely related to farming also suffered employment declines. Agricultural input industries lost 44,000 jobs, an 18.3-percent decline, while employment in agricultural processing and marketing industries decreased by 24,000 jobs, down 2 percent. Processing and marketing employment was negatively affected by mergers and acquisitions which swept the industry during the 1980's. This consolidation, plus the replacement or retooling of labor-intensive plants to rely on more automated machinery, reduced labor needs.

Job Growth Strongest in Mountain States

The Mountain States gained the largest number of nonmetro farm and farm-related jobs, over 120,000 positions or almost a 37-percent increase during 1975-92. Almost all the growth was in agricultural wholesale and retail trade industries, which gained about 124,000 jobs, a doubling of these jobs since 1975. Much of the agricultural trade industry growth was tied to the region's almost 1-million-person gain in nonmetro population. Job losses in farm production employment, which partially offset overall employment gains in other regions, remained relatively minor in the Mountain States, declining only 5.4 percent.

Decline in the Corn Belt contrasted with job growth in the Mountain States. The Corn Belt, one of only two regions where nonmetro farm and farm-related jobs declined, lost the most employment, over 26,000 jobs. A loss of over 135,000 farm production and agricultural service jobs, combined with employment declines in agricultural input and processing and marketing industries, contributed to the overall poor performance of the Corn Belt. The region's severe losses in these sectors were mitigated by strong gains in agricultural wholesale and retail trade.

Only in the nonmetro Northeast did agricultural processing and marketing industries fare worse than in the Corn Belt. Over 44,000 processing jobs, a 34.5-percent decline, were lost in nonmetro counties of the Northeast. Most of the losses in the region were in industries that manufacture apparel, textiles, and leather goods as these industries faced stiff competition from other regions and foreign producers.

Agriculture

Nonmetro farm and farm-related employment by primary economic activity of county, 1992

Large numbers of farm and farm-related jobs are in counties in which farming is not the primary economic activity

County type	Total	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
Number of jobs						
All nonmetro counties	5,972,611	2,015,597	195,844	1,178,961	2,451,273	130,936
Farming ¹	794,335	456,025	45,671	108,806	179,195	4,638
	(38.4) ²	(22.0)	(2.2)	(5.3)	(8.7)	(.2)
Mining	8,356	215,665	66,363	3,984	18,529	118,433
	(18.4)	(5.7)	(.3)	(1.6)	(10.1)	(.7)
Manufacturing	1,932,041	492,538	52,339	602,513	714,224	70,427
	(25.4)	(6.5)	(.7)	(7.9)	(9.4)	(.9)
Government	566,994	167,535	11,863	61,407	317,084	9,105
	(18.6)	(5.5)	(.4)	(2.0)	(10.4)	(.3)
Services	1,081,367	307,170	34,137	127,690	598,091	14,279
	(21.8)	(6.2)	(.7)	(2.6)	(12.0)	(.3)
Nonspecialized	1,346,137	514,219	47,616	256,723	504,060	23,519
	(27.1)	(10.4)	(1.0)	(5.2)	(10.2)	(.5)

¹County components may not add to total because of nonclassified counties.

²Numbers in parenthesis are percent of total nonmetro employment in each county type.

Source: Calculated by ERS using U.S. Department of Commerce data.

Employment change in nonmetro farm and farm-related industries, 1975-92

Job losses in farm production were outweighed by gains in wholesale and retail trade

Region	Total	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
Number of jobs						
United States	487,091	-548,142	-43,757	-23,955	1,067,077	26,868
	(8.7) ¹	(-21.4)	(-18.3)	(-2.0)	(77.1)	(25.8)
Appalachia	86,431	-87,527	-2,483	-6,420	177,835	5,326
	(9.4)	(-23.2)	(-11.7)	(-2.0)	(100.8)	(28.8)
Corn Belt	-26,030	-135,285	-23,605	-13,046	135,618	10,288
	(-2.4)	(-25.1)	(-31.7)	(-8.1)	(49.8)	(56.6)
Delta States	874	-78,832	-3,314	17,283	64,253	1,484
	(0.2)	(-37.2)	(-17.9)	(17.3)	(67.3)	(13.5)
Lake States	43,250	-59,084	-446	2,450	98,541	1,789
	(8.4)	(-22.1)	(-1.9)	(3.8)	(68.4)	(17.0)
Mountain	120,349	-8,152	-1,346	-1,702	123,538	4,607
	(36.9)	(-5.4)	(-10.1)	(5.2)	(102.5)	(58.4)
Northeast	71,083	-21,605	-2,637	-44,083	138,779	629
	(16.6)	(-17.5)	(-24.6)	(-34.5)	(88.3)	(51.3)
Northern Plains	-5,093	-57,363	-5,590	14,001	43,137	722
	(-1.1)	(-20.8)	(-17.2)	(26.4)	(42.2)	(51.3)
Pacific	68,411	-7,648	79	3,459	73,983	-1,462
	(29.7)	(-6.5)	(1.0)	(16.4)	(95.9)	(-23.9)
Southeast	49,738	-68,985	-2,962	-3,594	121,727	3,552
	(8.0)	(-32.1)	(-14.8)	(-1.4)	(106.3)	(20.9)
Southern Plains	28,781	-29,364	-1,738	-1,879	61,815	-53
	(6.2)	(-10.8)	(-10.6)	(-3.0)	(56.6)	(-1.1)

¹Numbers in parentheses are percent change, 1975-92.

Source: Calculated by ERS using U.S. Department of Commerce data.

Prospects for Future Growth

Farm production, once the primary source of employment in many rural areas, is unlikely to generate new nonmetro jobs in the future. Long-term trends in farm consolidation and increases in productivity will continue to reduce labor requirements needed to produce agricultural goods but at a very slow pace. Employment in closely related agricultural input industries will decline along with that in farm production. Processing of agricultural products to add value to the region's commodities may be a source of new jobs that build upon the agricultural base, but as evidenced during 1975-92, such processing industries lost 24,000 jobs. Nevertheless, some location-specific benefits can be obtained through the development of value-added agricultural operations. However, sustained employment growth in processing industries may depend on the ability to penetrate new markets through expanded distribution of existing goods or development of new products. Agricultural wholesale and retail trade industries, with strong relationships to income and population growth, should continue to gain jobs. [T. Alexander Majchrowicz, 202-219-0508, alexm@econ.ag.gov]

Two Methods of Measuring Farm-Linked Employment

The Economic Research Service uses two widely respected methods to measure employment related to agriculture. These two methods estimate employment differently—one counts the number of jobs in the economy while the other estimates the number of persons employed. Although these methods provide different employment totals, they both point to the continued importance of farm-related jobs in an era when farm employment itself has been in a long-term decline. In this article, farm-related jobs are measured using information contained in County Business Patterns (CBP) files and supplemented with data from the Bureau of Economic Analysis to account for the self-employed and industries not covered in the CBP. This approach counts the number of full- and part-time jobs in businesses which generally have at least 50 percent of their workforce employed in providing agricultural products to the economy. The food and fiber system approach, which is used in the next two articles, uses employment estimates based on the Bureau of Labor Statistics Current Population Survey of households and counts each worker once. It includes all sectors of the economy and uses an economic model to estimate each sector's employment contribution to the system. Employment figures using the food and fiber system approach are somewhat lower than those derived by the farm-related employment approach, in which one worker may hold multiple jobs.

Each method has advantages which are apparent in the articles in this section. The farm-related employment method, used in the first article, provides detailed industry data for individual counties. As part of this analysis, nonmetro counties were grouped according to their primary economic activity. The following two articles use the food and fiber system approach, which is especially helpful in understanding the national importance of farm-linked jobs and jobs related to agricultural exports.